Republic of the Philippines
National Electrification Administration

15 February 2007

MEMORANDUM No. 2007-007

TO : **ALL ELECTRIC COOPERATIVES**

SUBJECT : **NEA/EC SPECIFICATIONS FOR STEEL POLES**

It has been noted that most of the electric cooperatives (ECs) resorted to the procurement of steel poles. It was also observed that most of the erected steel poles, particularly in the Bicol provinces, Region II, Aurora and other ECs located in the heavy loading zone easily broke and got damaged after the strong typhoons hit the areas. The specification of steel poles, specifically the design load or strength, is a vital factor which the ECs must consider when procuring steel poles.

To guide ECs in the procurement of steel poles, and to assure that overhead line support of distribution lines have enough strength to sustain the strong winds in their areas, ECs are required to observe the following minimum specifications during the procurement process:

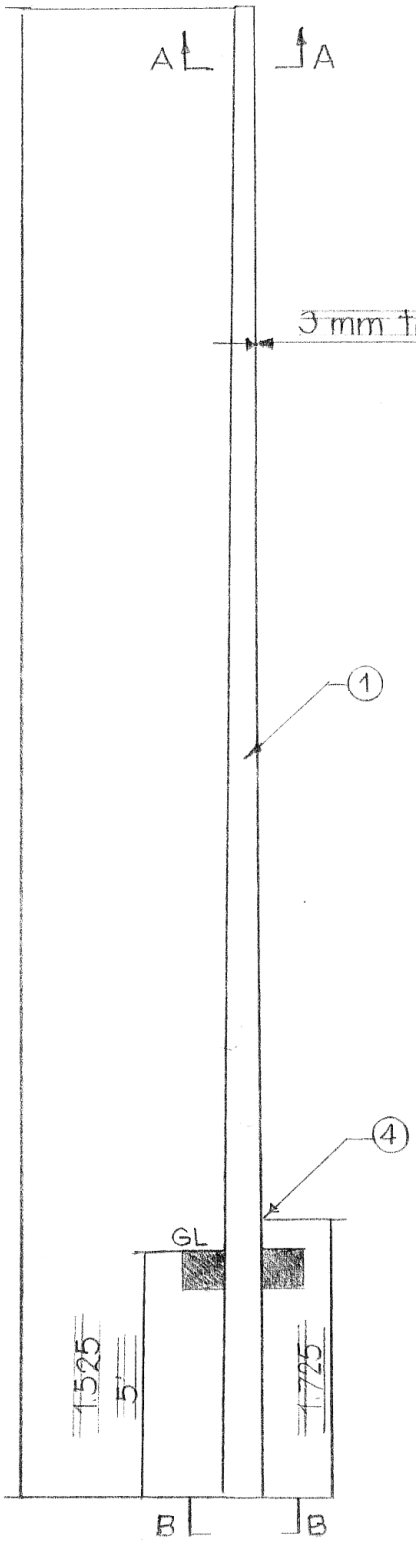
Height (ft.)	Thickness (mm.)	Butt Diameter (mm.)	Tip Diameter (mm.)	Design Load (kg.)	Yield Stress (MPA)	Zinc Coating (microns)
25	2.50	152	120	300	345	86
30	3.00	226	127	500	345	86
35	3.00	248	127	500	345	86
40	3.00	317	127	500	345	86

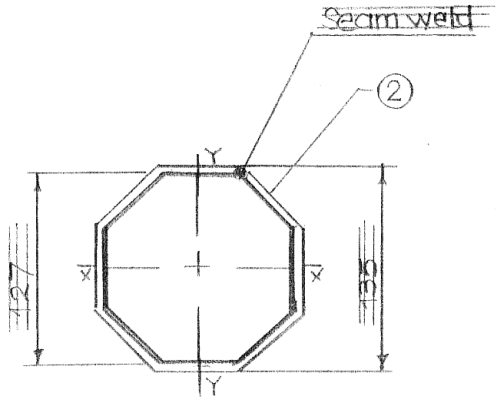
Further, attached are shop drawings of 30 ft., 35 ft. and 40 ft distribution steel poles for your information and reference.

ECs are enjoined to strictly comply with the above minimum specifications.

EDITA S. BUENO
Administrator

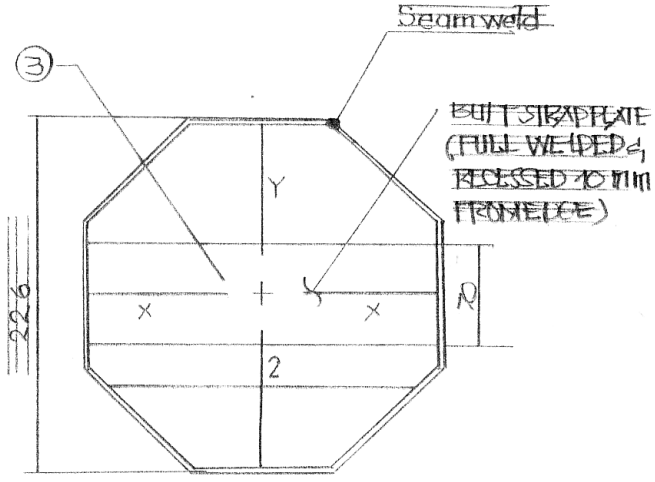
NATIONAL ELECTRIFICATION ADMINISTRATION
IN REPLYING, PLS. CITE: #OA010024
NEA-OA010024
2/15/07





Tip Detail

SECTION A-A



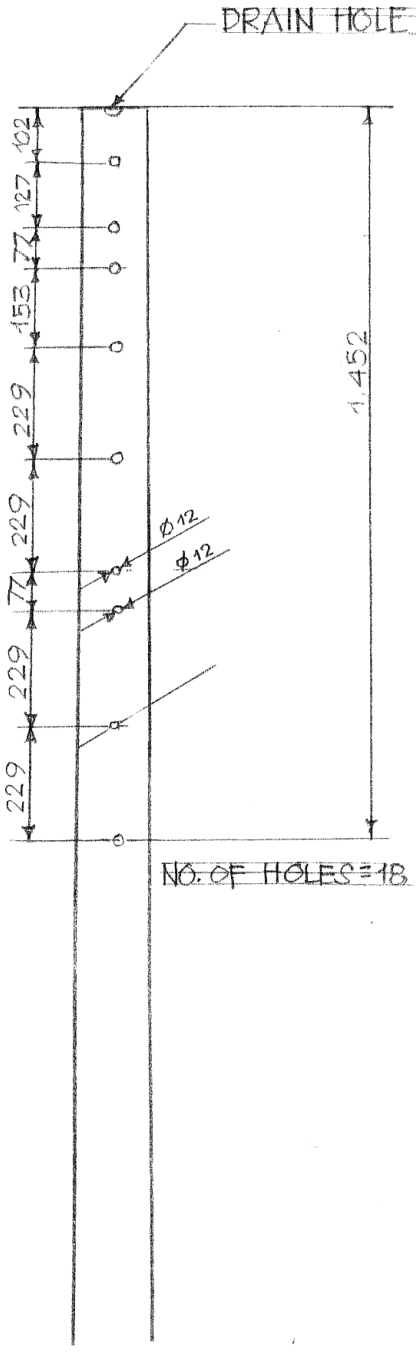
Butt Detail

SECTION B-B

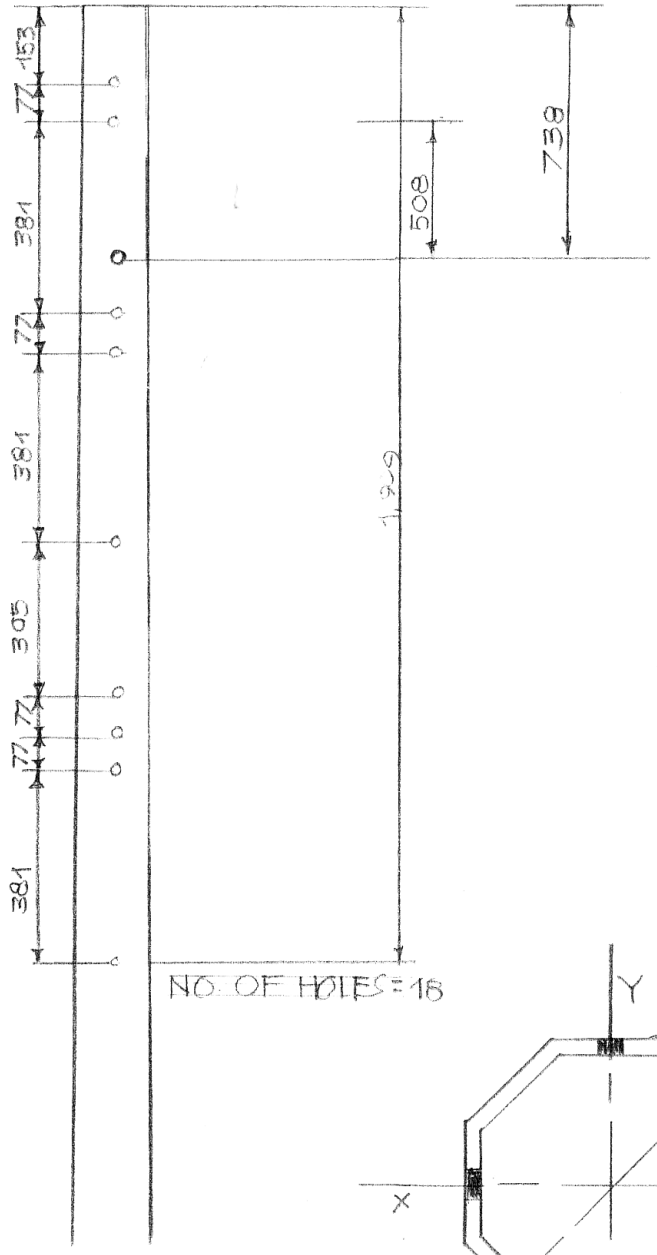
NOTES:

1. ALL DIMENSIONS ARE IN mm UNLESS SPECIFIED.
2. ALL STEEL PLATES SHALL CONFORM TO ASTM A36 WITH 350 MPa. YIELD STRENGTH.
3. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.1
4. ALL STEEL SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123

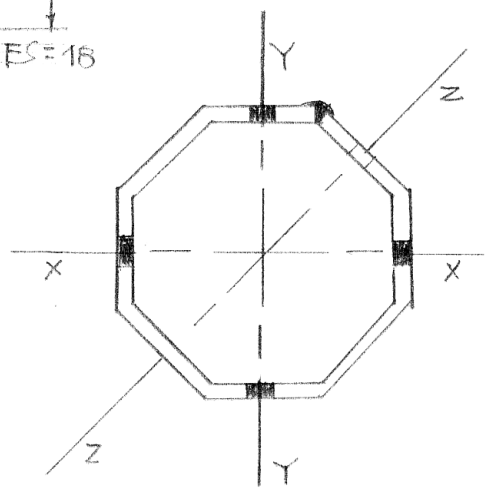
NATIONAL ELECTRIFICATION ADMINISTRATION	30FT. DISTRIBUTION POLE, OCTAGONAL GENERAL ARRANGEMENT DRAWING	SHEET 1/1



PLANE X-X



PLANE Y-Y

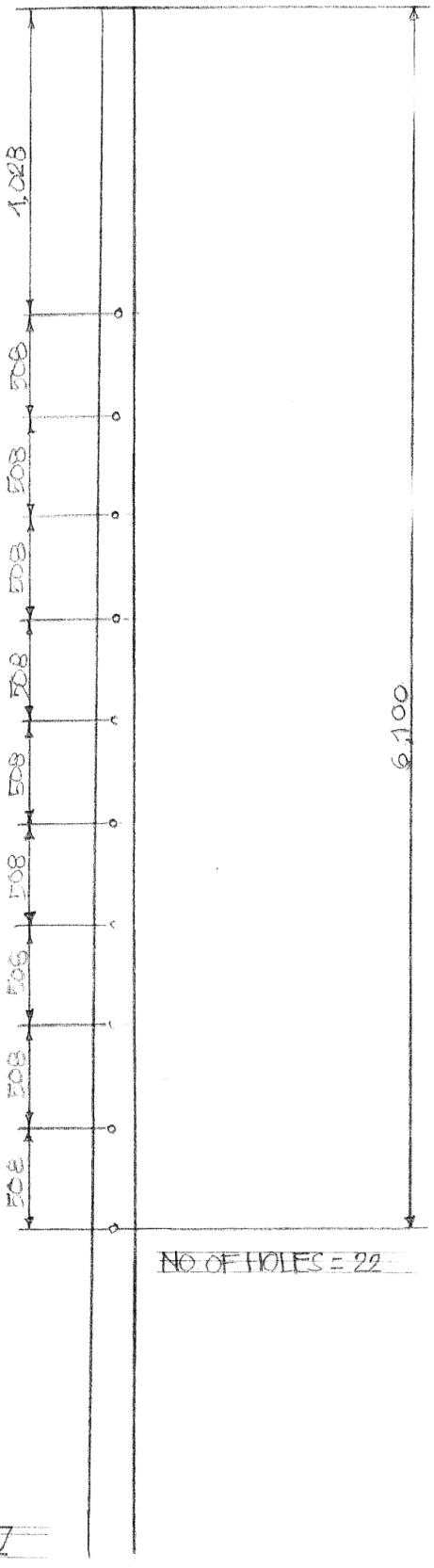


HOLE PLANES

NOTES:

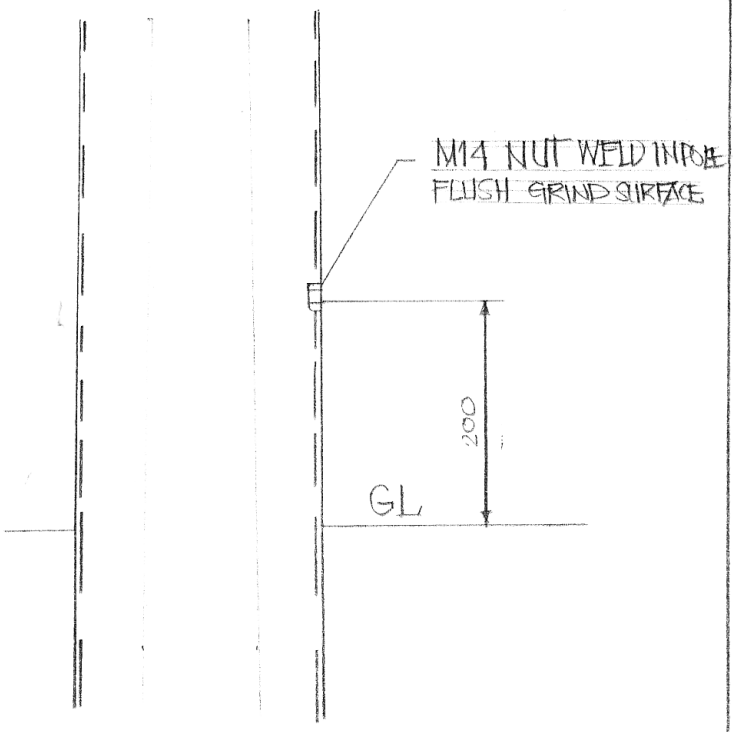
1. ALL HOLES ARE 16 mmØ UNLESS OTHERWISE STATED.
2. ALL HOLES ARE THROUGH TO THE POLE BODY.
3. ALL BURRS THAT REMAIN SHOULD BE REMOVED.

NATIONAL ELECTRIFICATION ADMINISTRATION	30FT. DISTRIBUTION POLE OCTAGONAL FRAMING HOLES DETAIL	SHEET 2/4

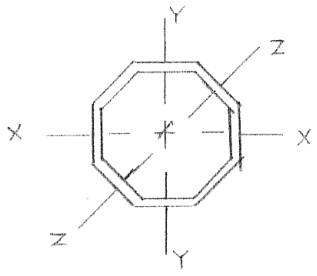


NO OF HOLES = 22

PLANE Z-Z



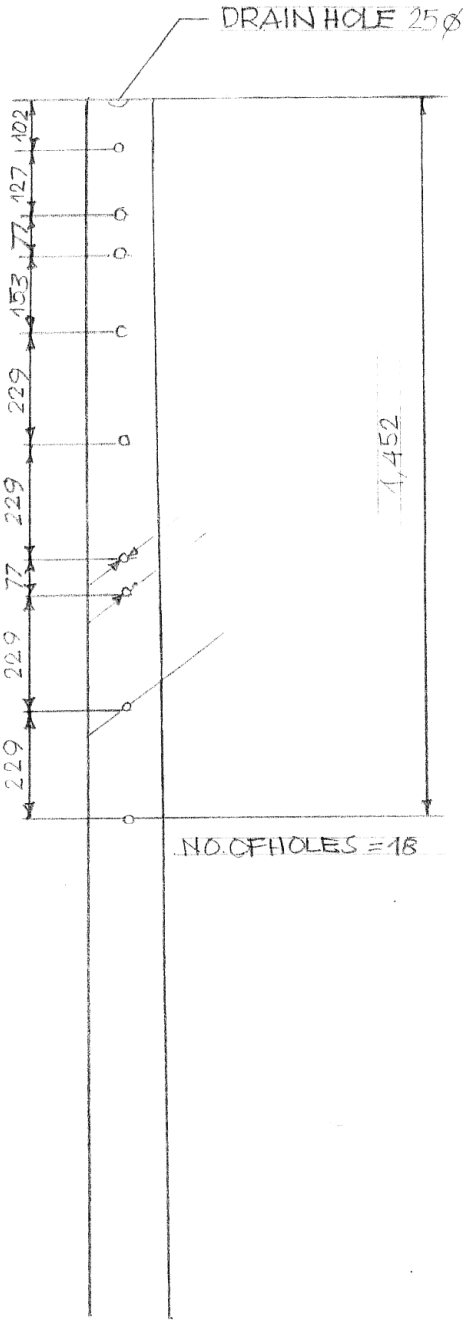
GROUNDING NUT



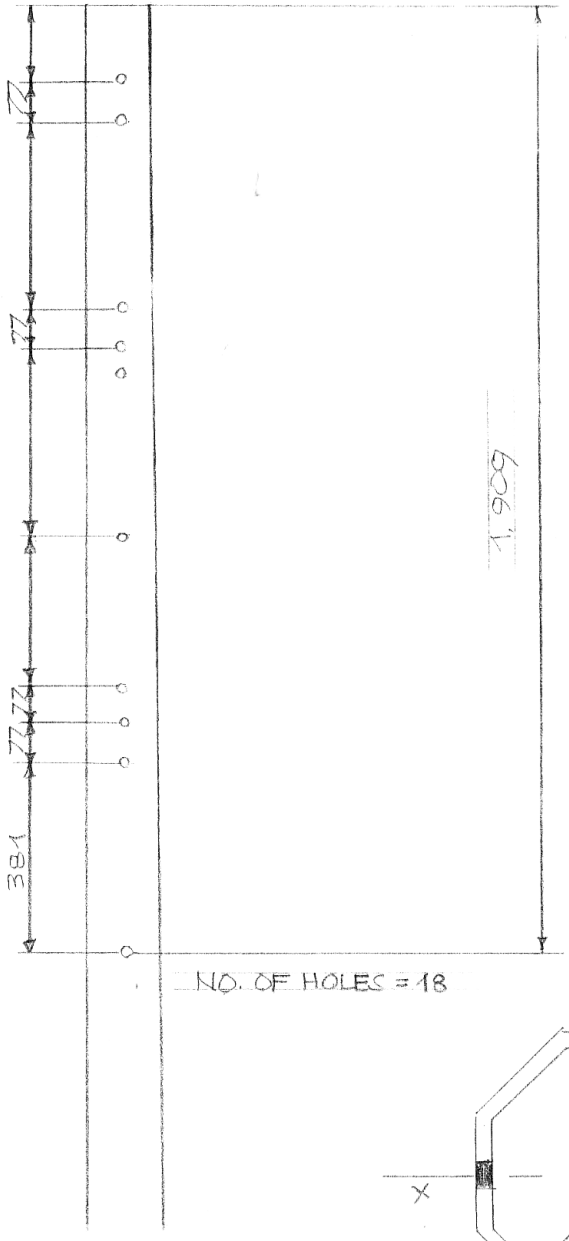
NOTES:

1. ALL HOLES ARE 18 mm$\varnothing$ UNLESS OTHERWISE SPECIFIED
2. ALL HOLES ARE THROUGH AND THROUGH TO PULE BODY.
3. ANY BURRS THAT REMAIN SHOULD BE REMOVED.
4. ALL THREADS MUST BE HAND-TAPPED AFTER GALVANIZING

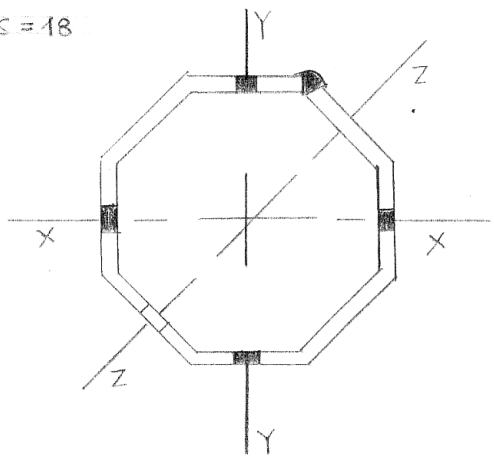
NATIONAL ELECTRIFICATION ADMINISTRATION	30FT. DISTRIBUTION POLE OCTAGONAL STEP HOLES AND GROUNDING NUT DETAIL	SHEET 3/4



PLANE X-X



PLANE Y-Y

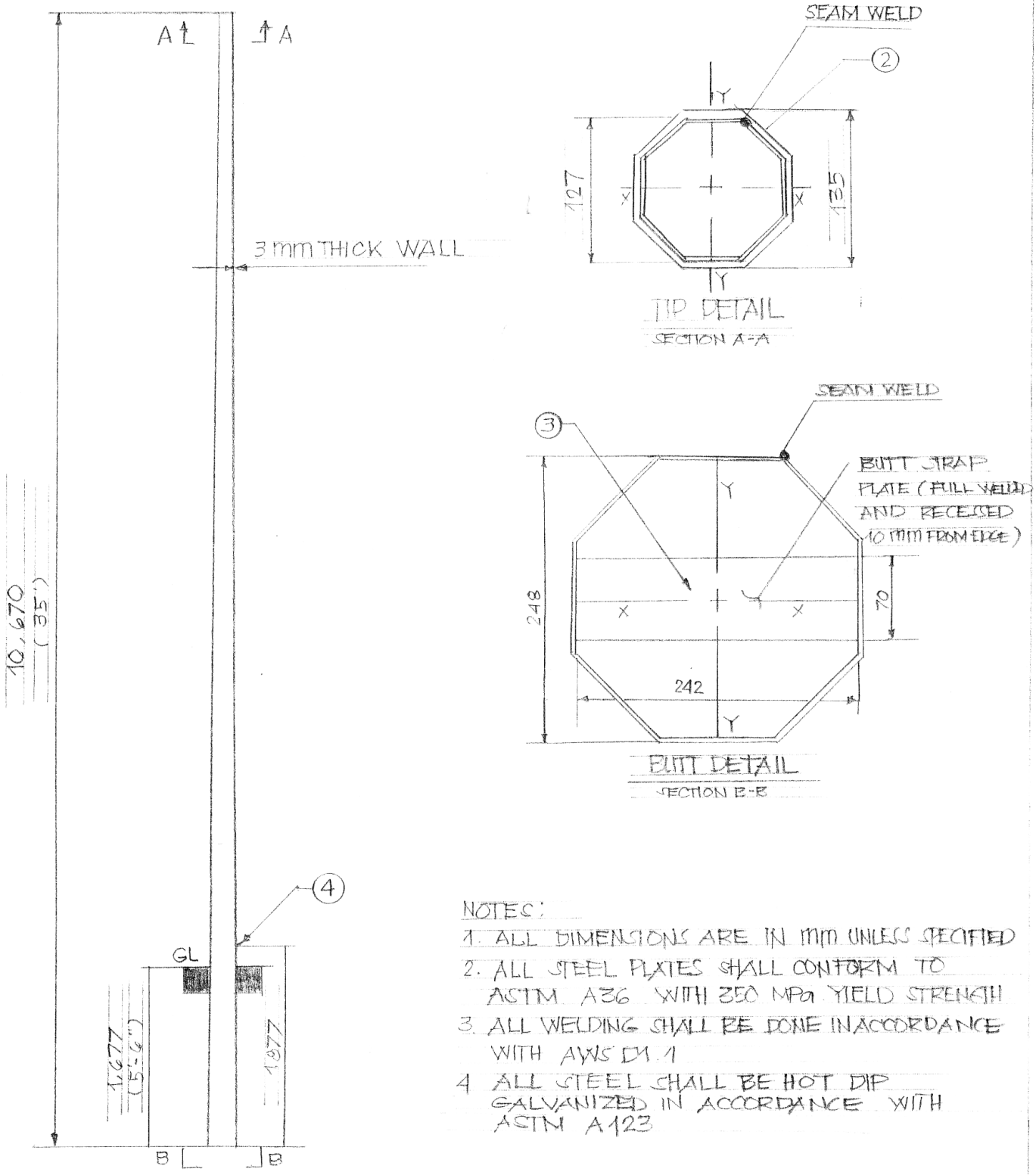


HOLE PLANES

NOTES:

1. ALL HOLES ARE 18 mmØ UNLESS OTHERWISE SPECIFIED.
2. ALL HOLES ARE THROUGH AND THROUGH TO THE POLE BODY.
3. ANY BURRS THAT REMAIN SHOULD BE REMOVED.

NATIONAL ELECTRIFICATION ADMINISTRATION	30FT DISTRIBUTION POLE OCTAGONAL FRAMING HOLES DETAIL	SHEET 4/4



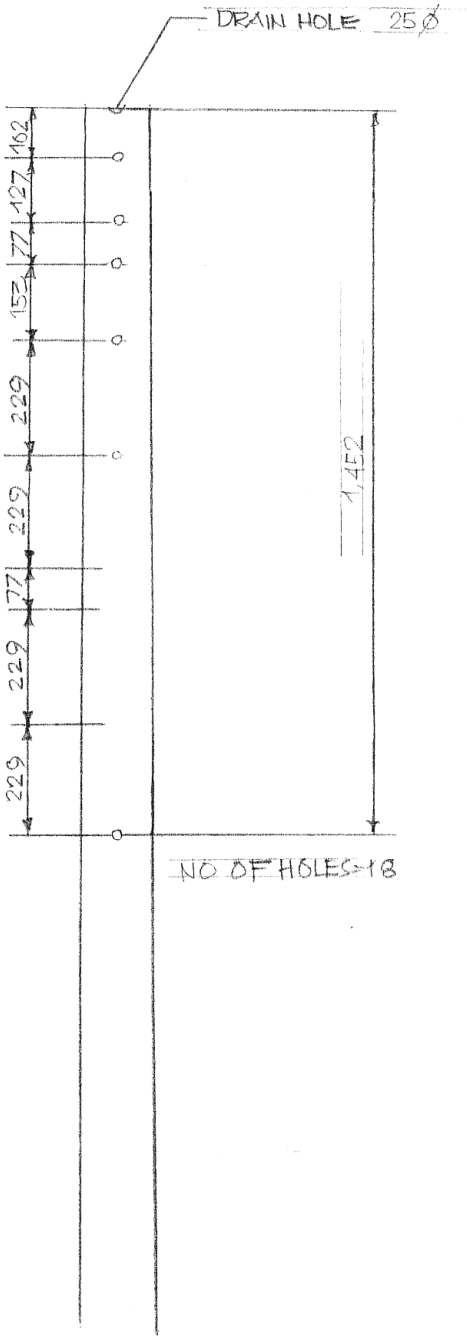
NOTES:

1. ALL DIMENSIONS ARE IN mm UNLESS SPECIFIED
2. ALL STEEL PLATES SHALL CONFORM TO ASTM A36 WITH 250 MPa YIELD STRENGTH
3. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.1
4. ALL STEEL SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123

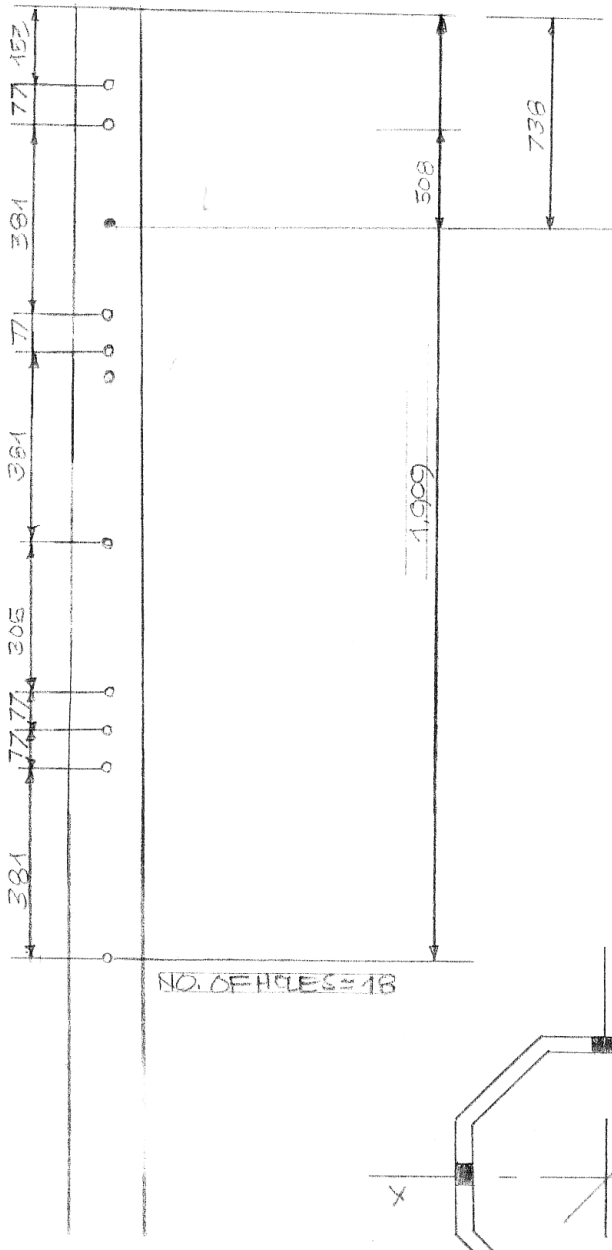
NATIONAL ELECTRIFICATION ADMINISTRATION

35FT. DISTRIBUTION POLE
OCTAGONAL
GENERAL ARRANGEMENT DRAWING

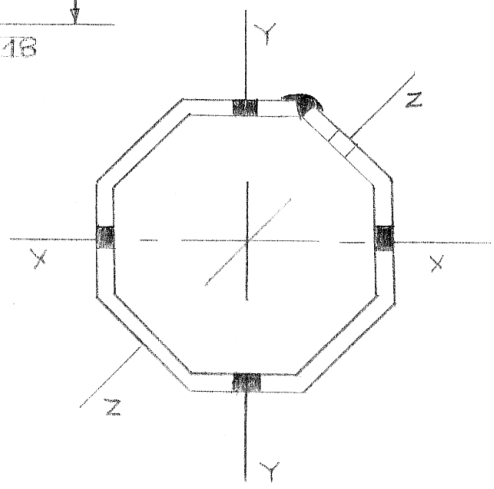
SHEET 1/4



PLANE X-X



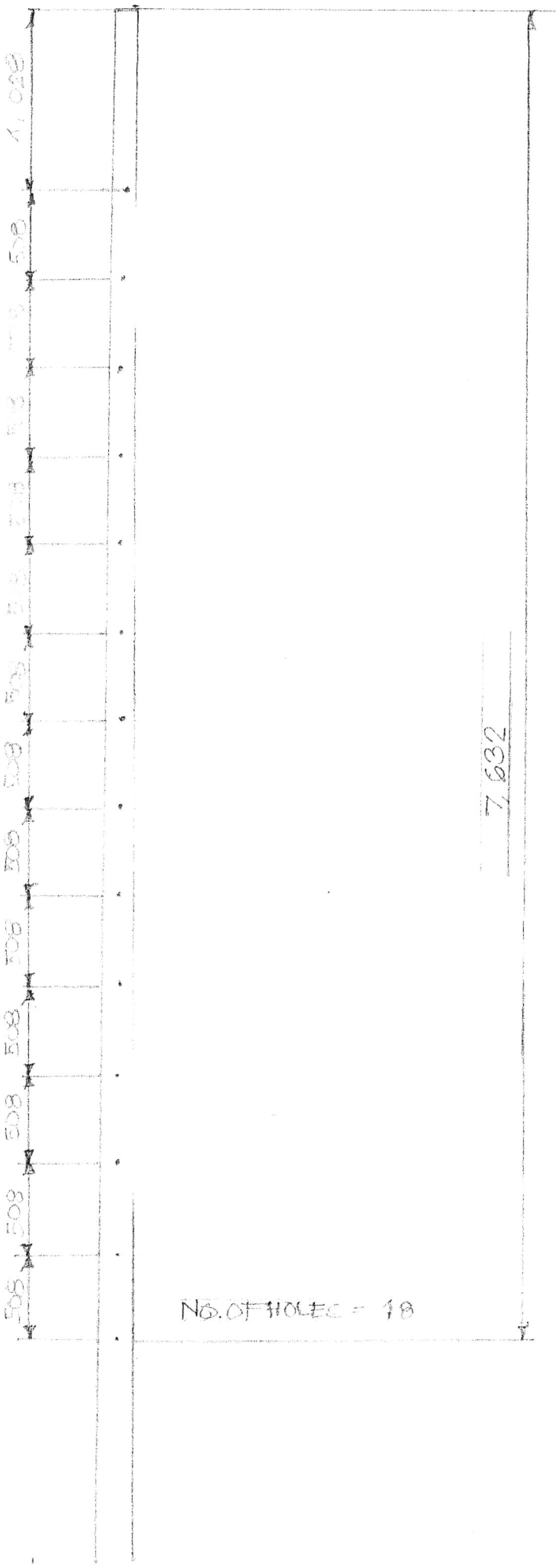
PLANE Y-Y



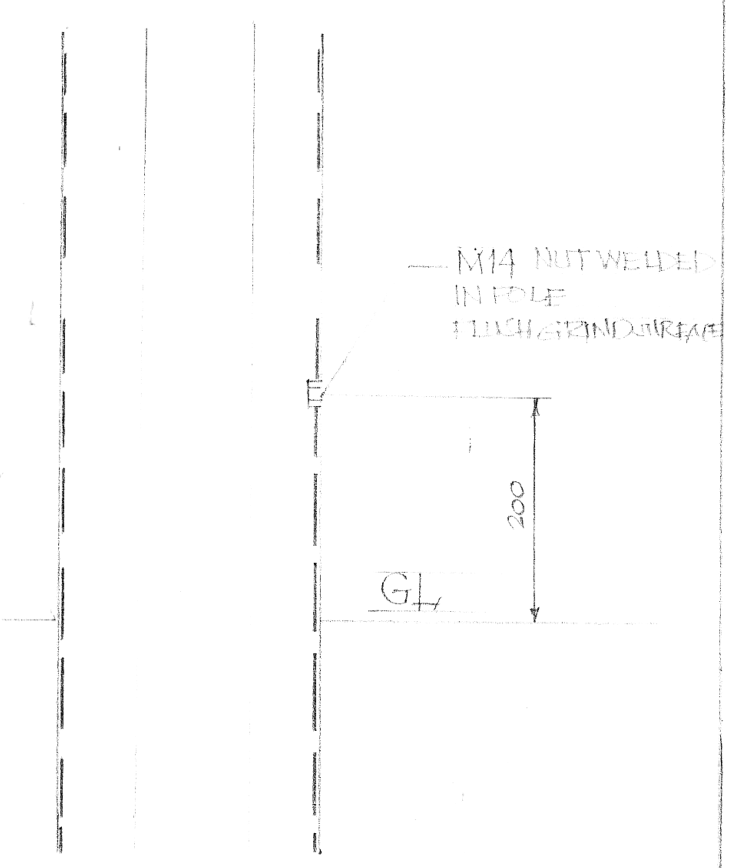
HOLE PLANES

NOTES:
1. ALL HOLES ARE 18 mmØ UNLESS OTHERWISE SPECIFIED
2. ALL HOLES ARE THROUGH AND THROUGH TO THE POLE BODY.
3. ANY BURRS THAT REMAIN SHOULD BE REMOVED.

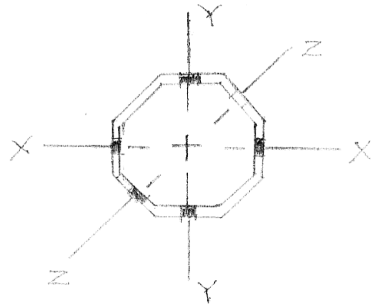
NATIONAL ELECTRIFICATION ADMINISTRATION	35 FT DISTRIBUTION POLE OCTAGONAL FRAMING HOLES DETAIL	SHEET 2/4



PLANE Z-Z



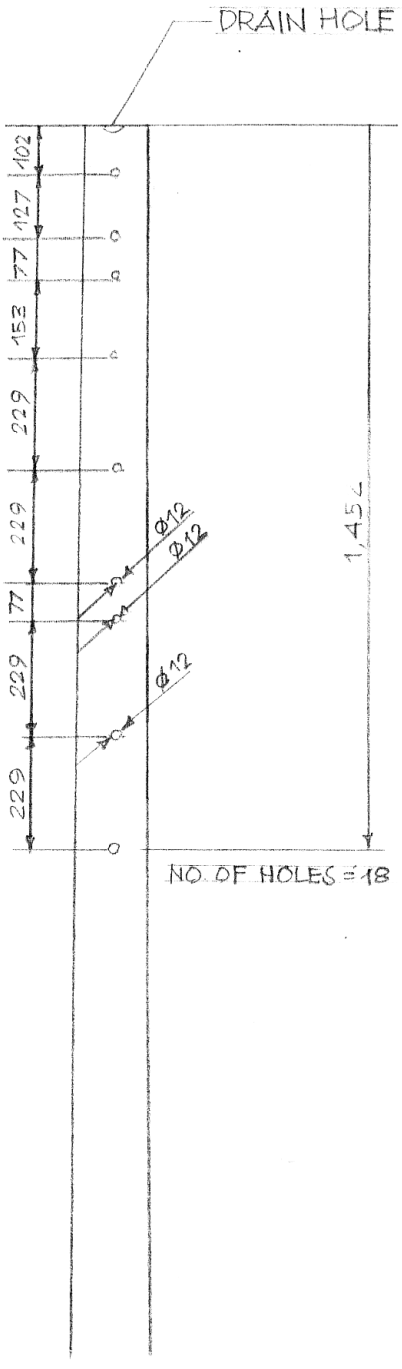
GROUNDING NUT



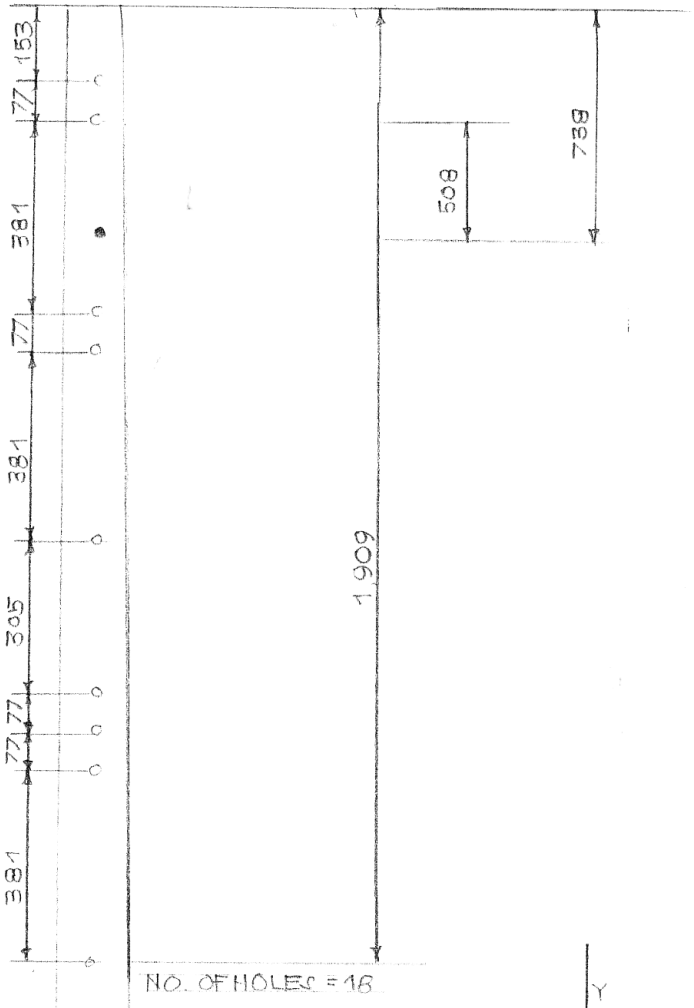
NOTES:

1. ALL HOLES ARE 15 mm Ø UNLESS OTHERWISE SPECIFIED
2. ALL HOLES ARE THROUGH TO THE POLE BODY.
3. ANY BURRS THAT REMAIN SHOULD BE REMOVED.
4. ALL THREADS MUST BE HAND-TAPPED AFTER GALVANIZING.

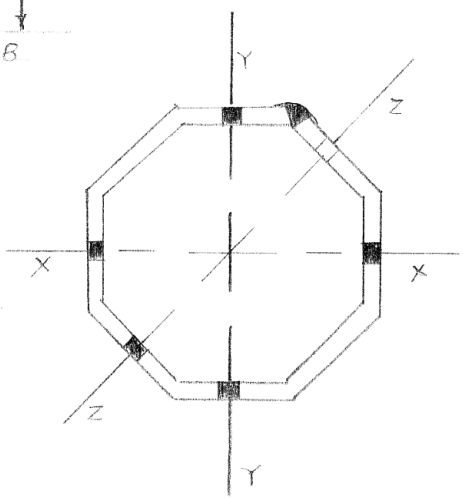
NATIONAL ELECTRIFICATION ADMINISTRATION	35FT DISTRIBUTION POLE OCTAGONAL STEP HOLES AND GROUNDING DETAIL	SHEET 3/4



PLANE X-X



PLANE Y-Y

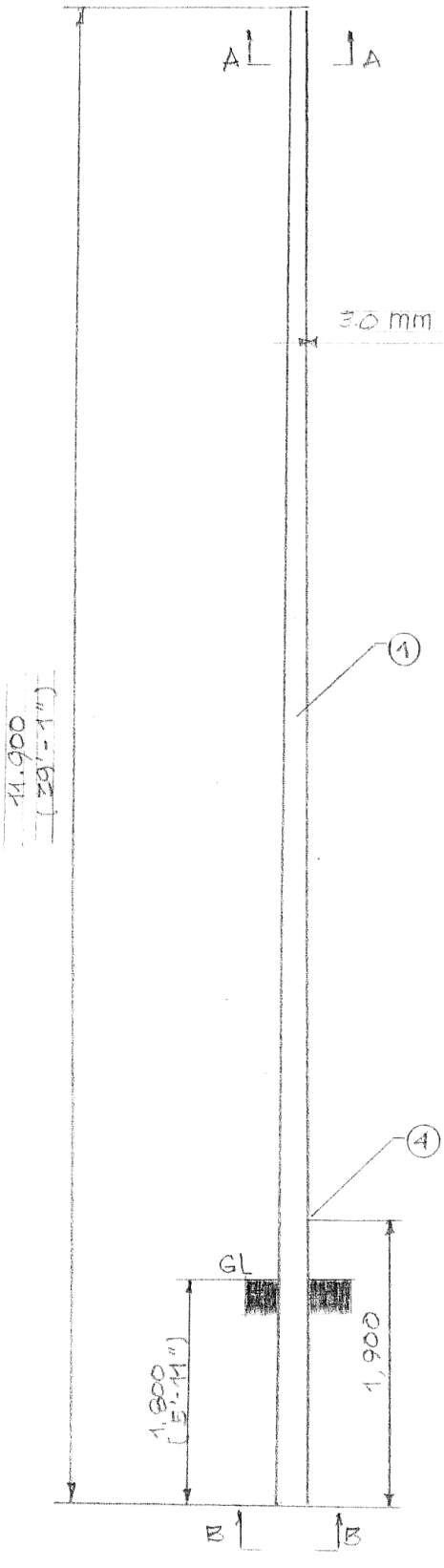


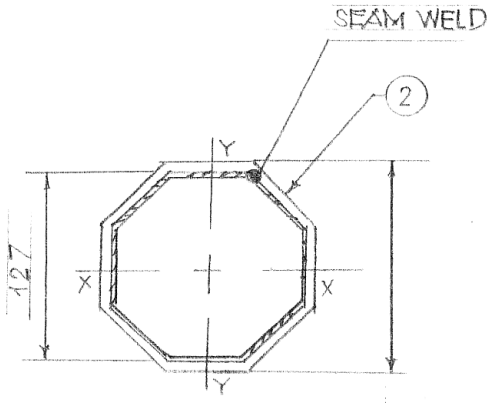
HOLE PLANES

NOTES:

1. ALL HOLES ARE 18 mmØ UNLESS OTHERWISE SPECIFIED
2. ALL HOLES ARE THROUGH AND THROUGH TO THE POLE BODY
3. ANY BURRS THAT REMAIN SHOULD BE REMOVED

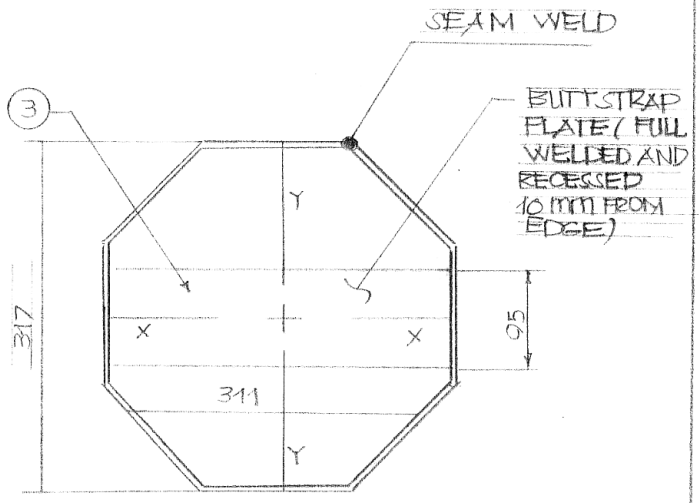
NATIONAL ELECTRIFICATION ADMINISTRATION	35FT DISTRIBUTION POLE OCTAGONAL FRAMING HOLES DETAIL	SHEET 4/4





TIP DETAIL

SECTION A-A



BUTT DETAIL

SECTION B-B

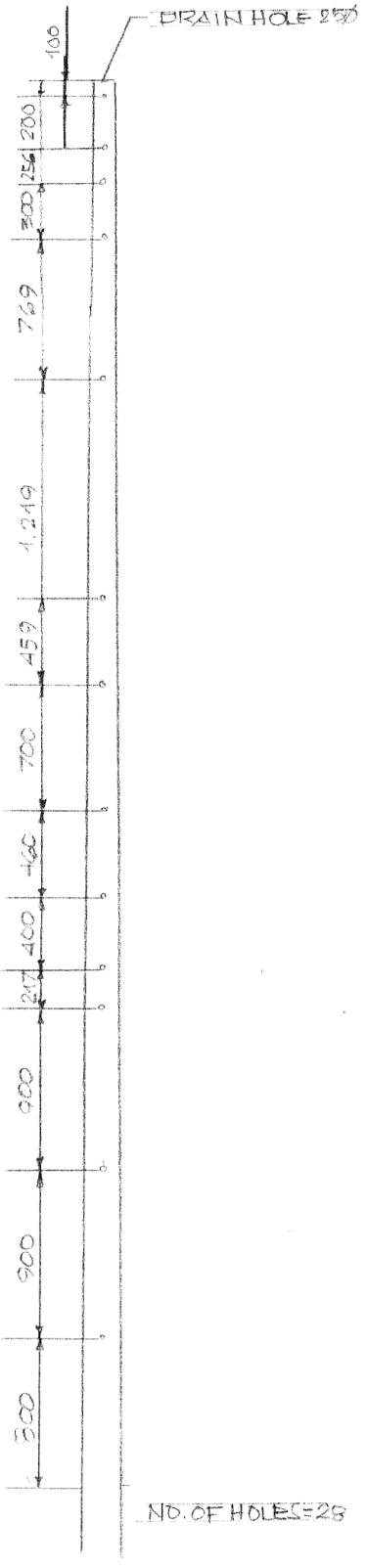
NOTES:

1. ALL DIMENSIONS ARE IN mm UNLESS SPECIFIED
2. ALL STEEL PLATES SHALL CONFORM TO ASTM A36 WITH 310 MPa YIELD STRENGTH.
3. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.1
4. ALL STEEL SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A123

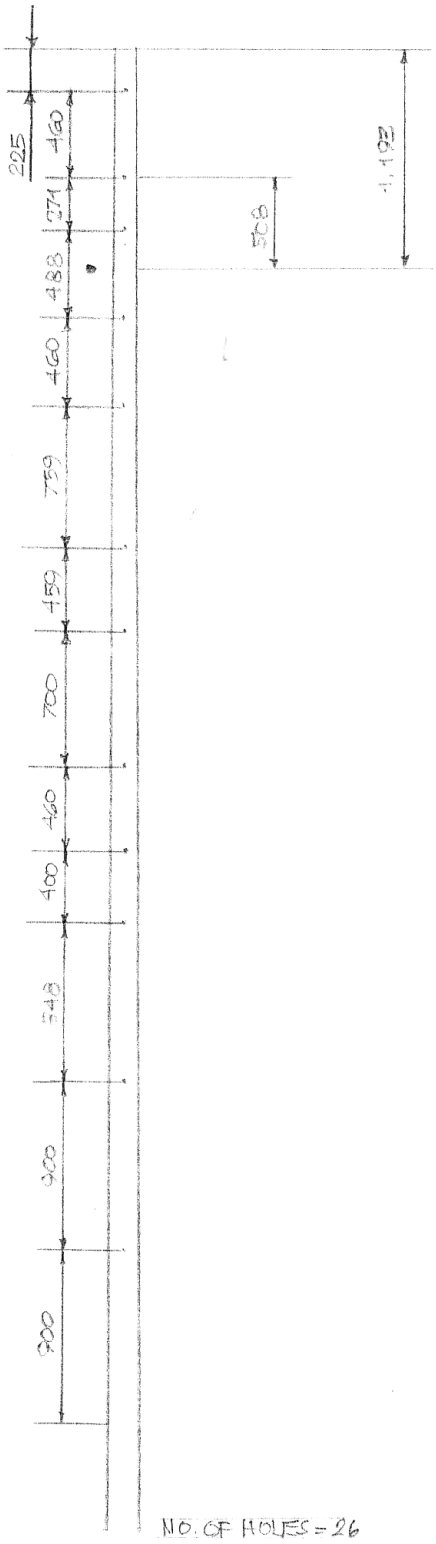
NOTATION:

ALL STEEL PLATES SHALL CONFORM TO ASTM A36 WITH 350 MPa MIN YIELD STRENGTH INSTEAD OF 310 MPa YIELD STRENGTH

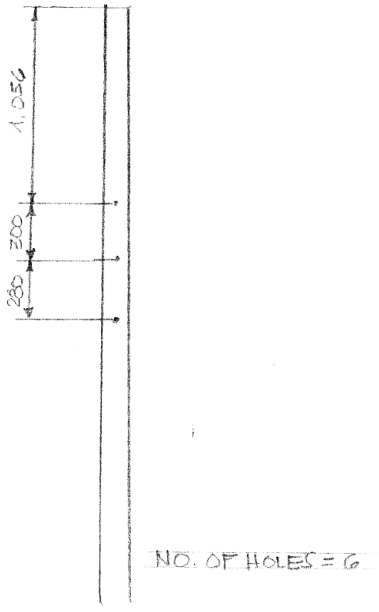
NATIONAL ELECTRIFICATION ADMINISTRATION	40FT DISTRIBUTION POLE OCTAGONAL GENERAL ARRANGEMENT DRAWING	SHEET 1/2



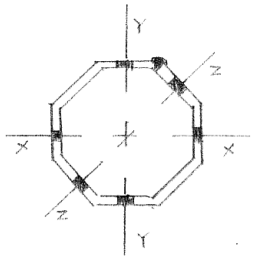
PLANE X-X



PLANE Y-Y



PLANE Z-Z



HOLE PLANES

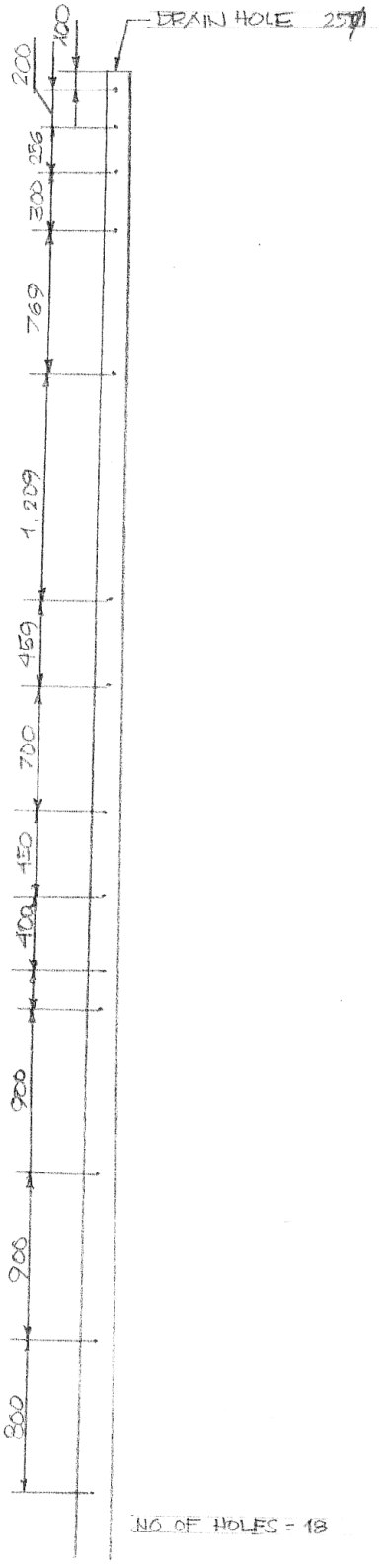
NOTES:

1. ALL HOLES ARE 18 mm Ø UNLESS OTHERWISE SPECIFIED.
2. ALL HOLES ARE THROUGH AND THROUGH TO THE POLE BODY
3. ANY BURRS THAT REMAIN SHOULD BE REMOVED.

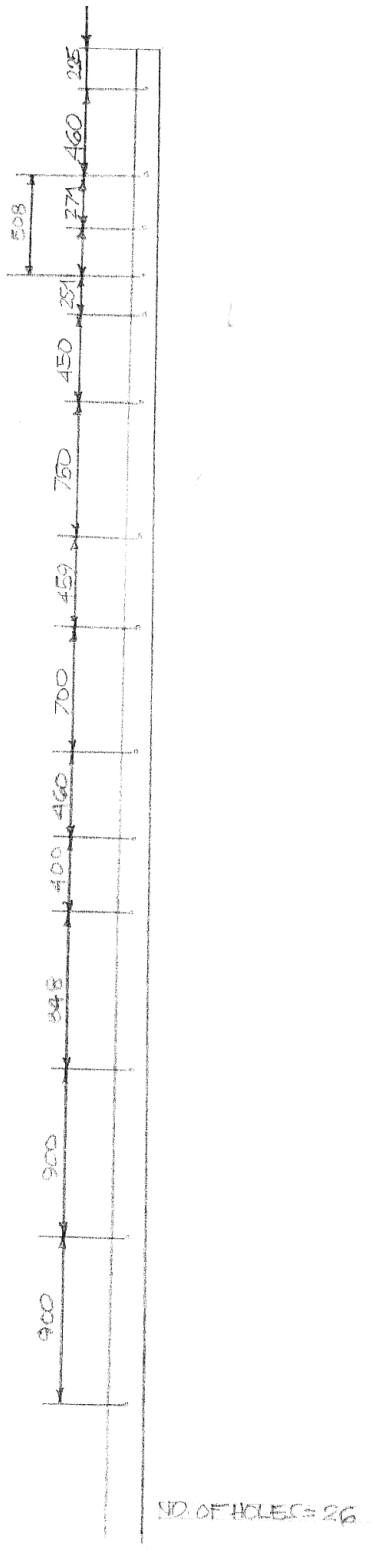
NATIONAL ELECTRIFICATION ADMINISTRATION

40FT DISTRIBUTION POLE
OCTAGONAL
HOLE DETAIL

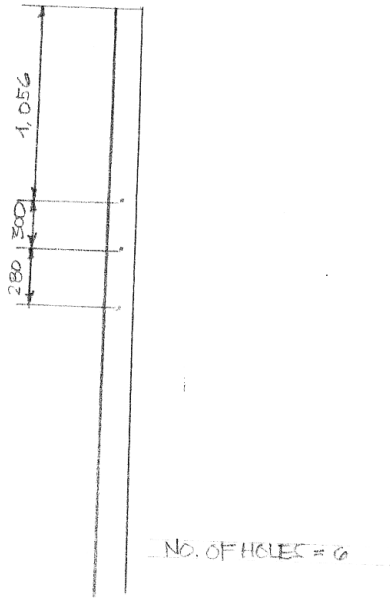
SHEET 2/3



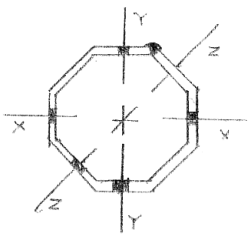
PLANE X-X



PLANE Y-Y



PLANE Z-Z



HOLE PLANES

NOTES:

1. ALL HOLES ARE 18 mmØ UNLESS OTHERWISE SPECIFIED
2. ALL HOLES ARE THROUGH AND THROUGH TO THE POLE BODY
3. ANY BURRS THAT REMAIN SHOULD BE REMOVED.

NATIONAL ELECTRIFICATION ADMINISTRATION	40FT DISTRIBUTION POLE OCTAGONAL HOLE DETAIL	SHEET 3/3